

Notice of Allowability	Application No.	Applicant(s)	
	09/698,241	SUDA, YASUO	
	Examiner	Art Unit	
	Kelly L. Jerabek	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Request for Continued Examination filed 12/23/2004.
2. ☒ The allowed claim(s) is/are 1 and 4-22.
3. ☒ The drawings filed on 30 October 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|--|

DETAILED ACTION

Allowable Subject Matter

Claims 1 and 4-22 allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fail to anticipate or render obvious the following technical features as recited in the highlighted claims:

Referring to claims 1 and 4-22, the prior art fails to teach or suggest "a photoelectric conversion portion having (a) a first photoelectric conversion unit which performs photoelectric conversion of a light beam emitted from a first pupil area of said image pickup optical unit; (b) a second photoelectric conversion unit which performs photoelectric conversion of a light beam emitted from a second pupil area of said image pickup optical unit, said second pupil area being different from said first pupil area, and (c) a microlens which is common to said first and second photoelectric conversion units; and a light blocking unit having a portion for blocking light, a first opening for allowing passage of a portion of light in said first pupil area, and a second opening for allowing passage of a portion of light in said second pupil area, wherein, for the first opening and the second opening, the portion of light having passed is guided onto an image pickup surface of said image pickup unit; and a detecting unit which detects a focus condition

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of said image pickup optical unit of the basis of photoelectric conversion output s of said first photoelectric conversion unit and said second photoelectric conversion unit”.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suda (US 6,597,868) discloses a focus-detecting device determining a focusing state based on phase difference information. The information regarding phase focus determination for large defocus conditions is pertinent material.

Ide (US 6,781,632) discloses an image pick-up apparatus capable of focus detection. The information regarding using a microlens to pupil divide light is pertinent material.

Ide et al. (US 6,819,360) discloses an image pick-up apparatus for focusing. The information regarding using a microlens to pupil divide light is pertinent material.

Kondo et al. (US 6,829,008) discloses a solid-state image sensing apparatus. The information regarding using a microlens to pupil divide light is pertinent material.

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Akashi et al. (US 5,784,655) discloses a focus detecting apparatus having photoelectric area sensors. The information regarding focus detection is pertinent material.


Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is 703-305-8659. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for submitting all Official communications is 703-872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc.; may be faxed directly to the Examiner at 703-746-3059.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KLJ


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
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